

RECLAMATION

Managing Water in the West

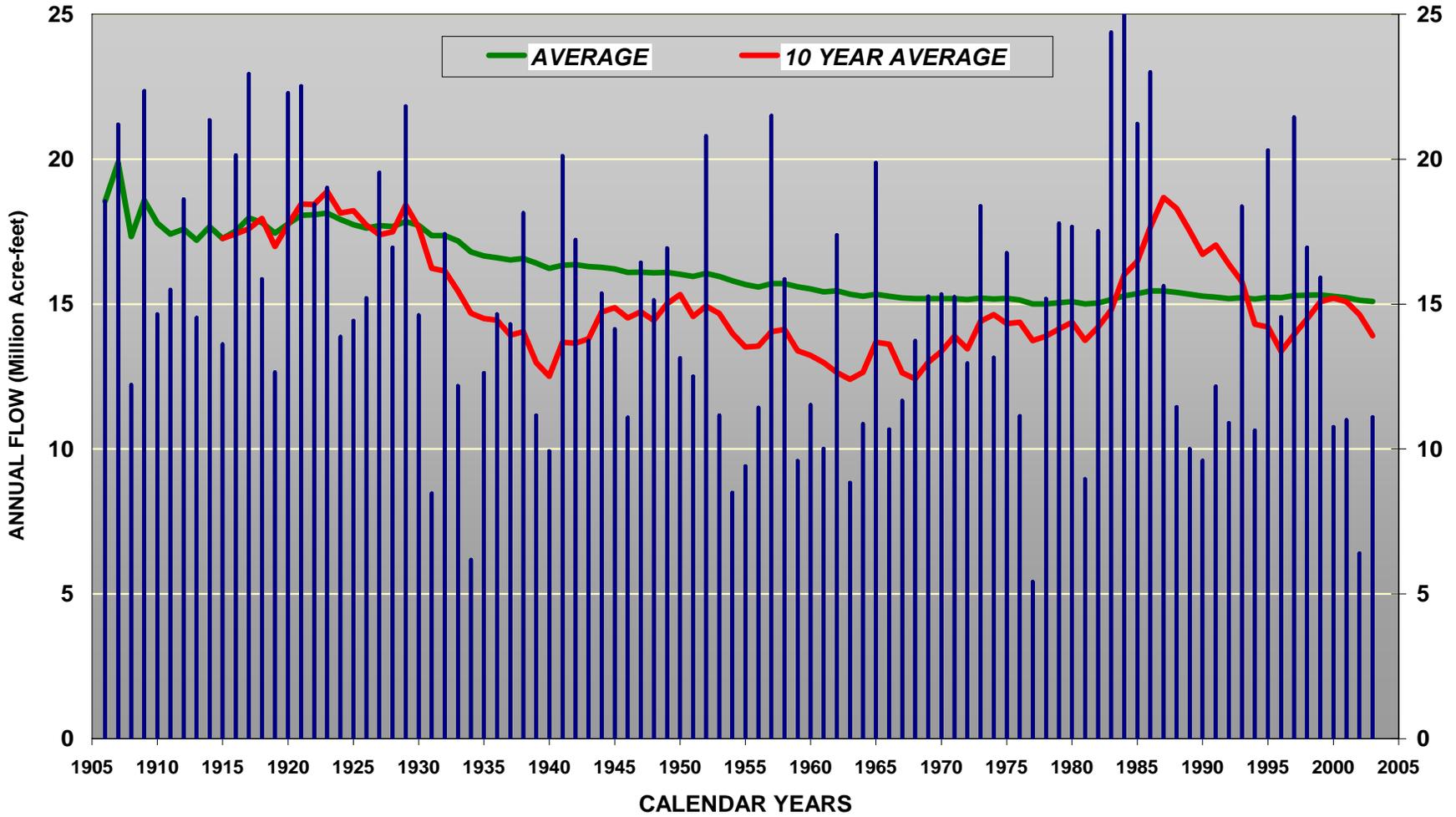
The Colorado River: Operation and Current Conditions

APRIL 09, 2007



U.S. Department of the Interior
Bureau of Reclamation

NATURAL FLOW
Colorado River at Lees Ferry, AZ
Calendar Year 1906-2003



1996 to 2003: Provisional data, subject to change.

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Operation of Lake Powell

- Three modes of governing annual releases from Lake Powell
 - Minimum objective release – 8.23 maf
 - Equalization (if Powell storage > Mead and the 602(a) storage criteria is met)
 - Spill avoidance
- For 2007, minimum objective release will govern the operation

Operation of Lake Mead

- Two modes of governing annual releases from Lake Mead
 - Flood control operations
 - Meet downstream requirements (or demands)
- For 2007, meeting downstream demands will govern the operation

Operation of Lake Mead Downstream Requirements

- Downstream demands include:
 - California 4.4 maf
 - Arizona 2.8 maf
 - Nevada 0.3 maf
 - Mexico 1.5 maf
 - Regulation of Lakes Mohave and Havasu
 - System gains and losses
- Deliveries can be larger or smaller pursuant to the Consolidated Decree in *Arizona v. California*

Water Budget at Lake Mead

- Given current demands in the Lower Basin (including Mexico), and minimum objective release from Lake Powell, Lake Mead storage will continue to decline

▪ Inflow (release from Powell + side inflows)	= 9.0 maf
▪ Outflow (LB and Mexico apportionments + downstream regulation, gains and losses)	= - 9.5 maf
▪ Mead evaporation loss	= - 0.8 maf
▪ Balance	= - 1.3 maf

Colorado River Basin Storage

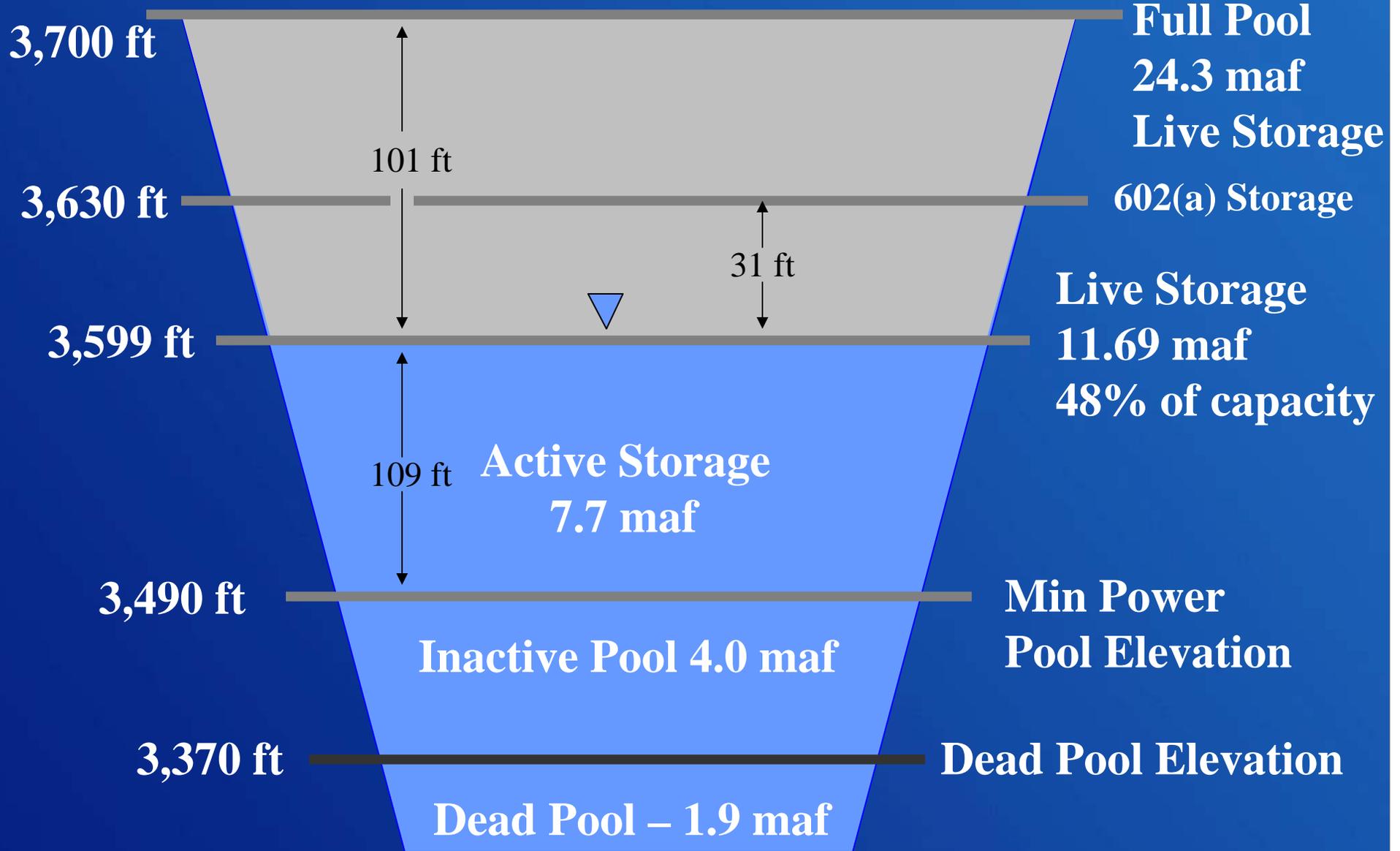
(as of April 8, 2007)

Current Storage	Percent Full	MAF	Elevation (Feet)
Lake Powell	48%	11.69	3599
Lake Mead	53%	13.83	1125
Total System Storage	56%*	33.31	NA

*Total system storage was 33.54 maf or 56% this time last year

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Lake Powell Capacity

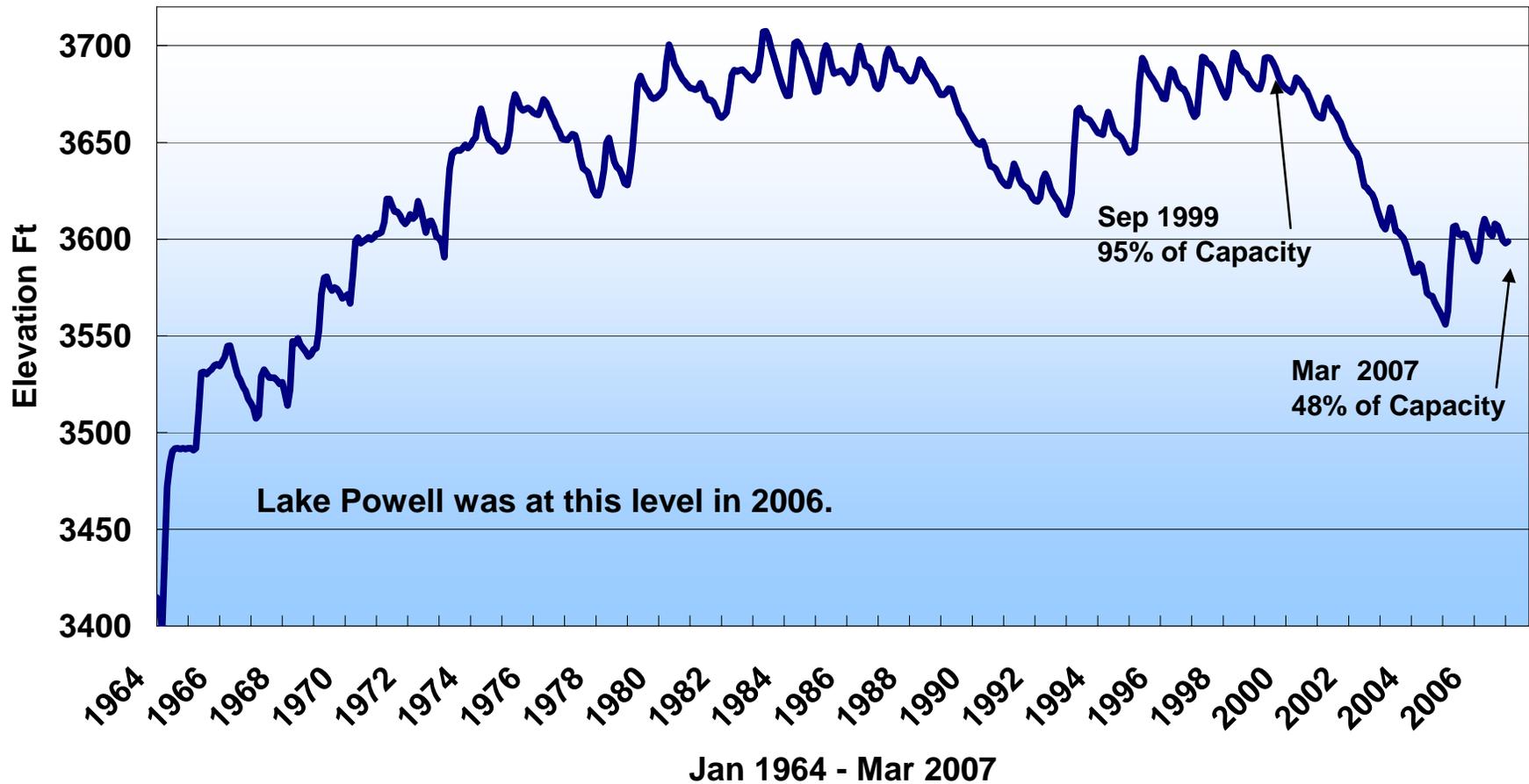


Not to scale

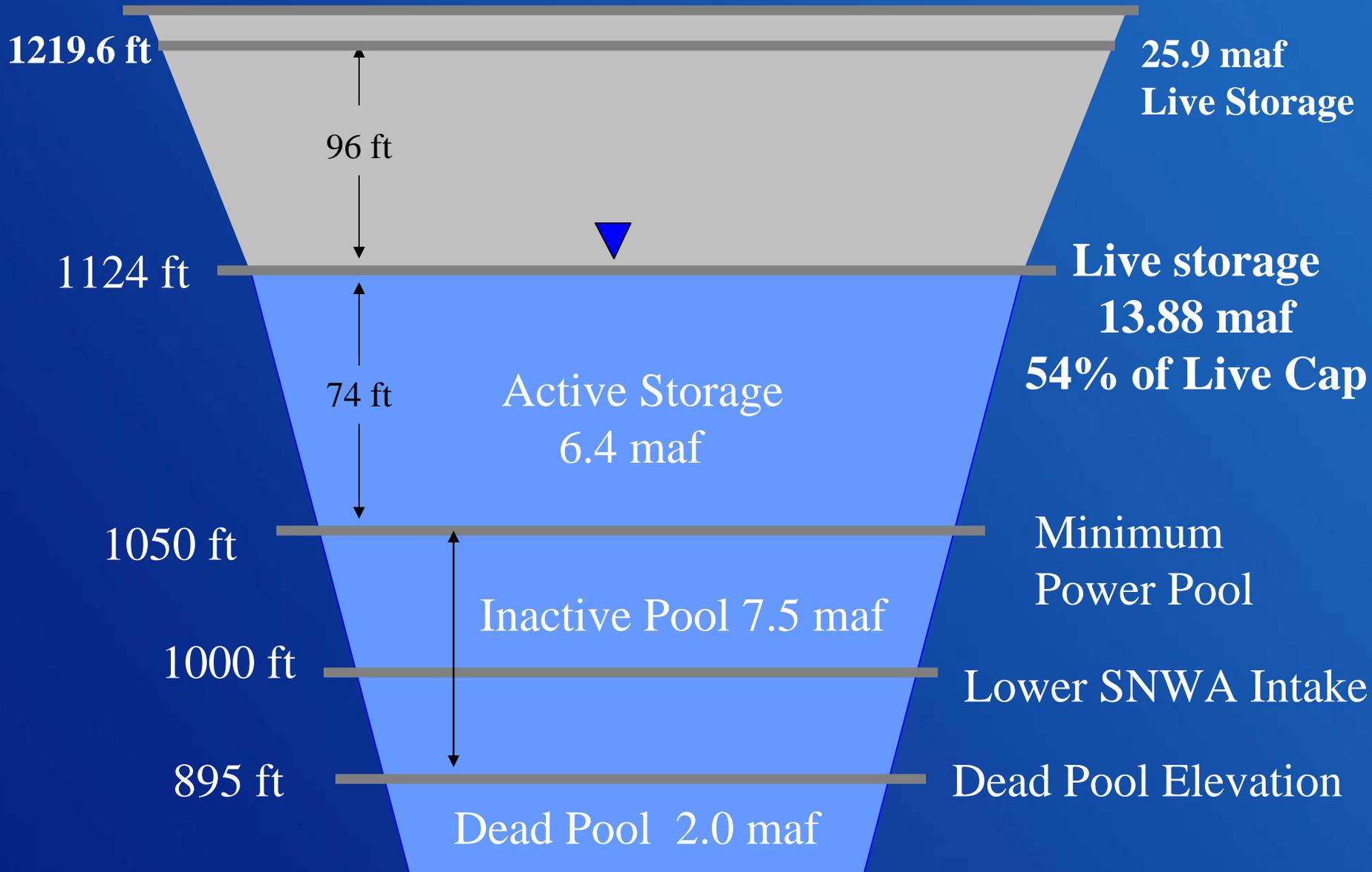
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Lake Powell End of Month Elevation 1964 through Present



Lake Mead Capacity

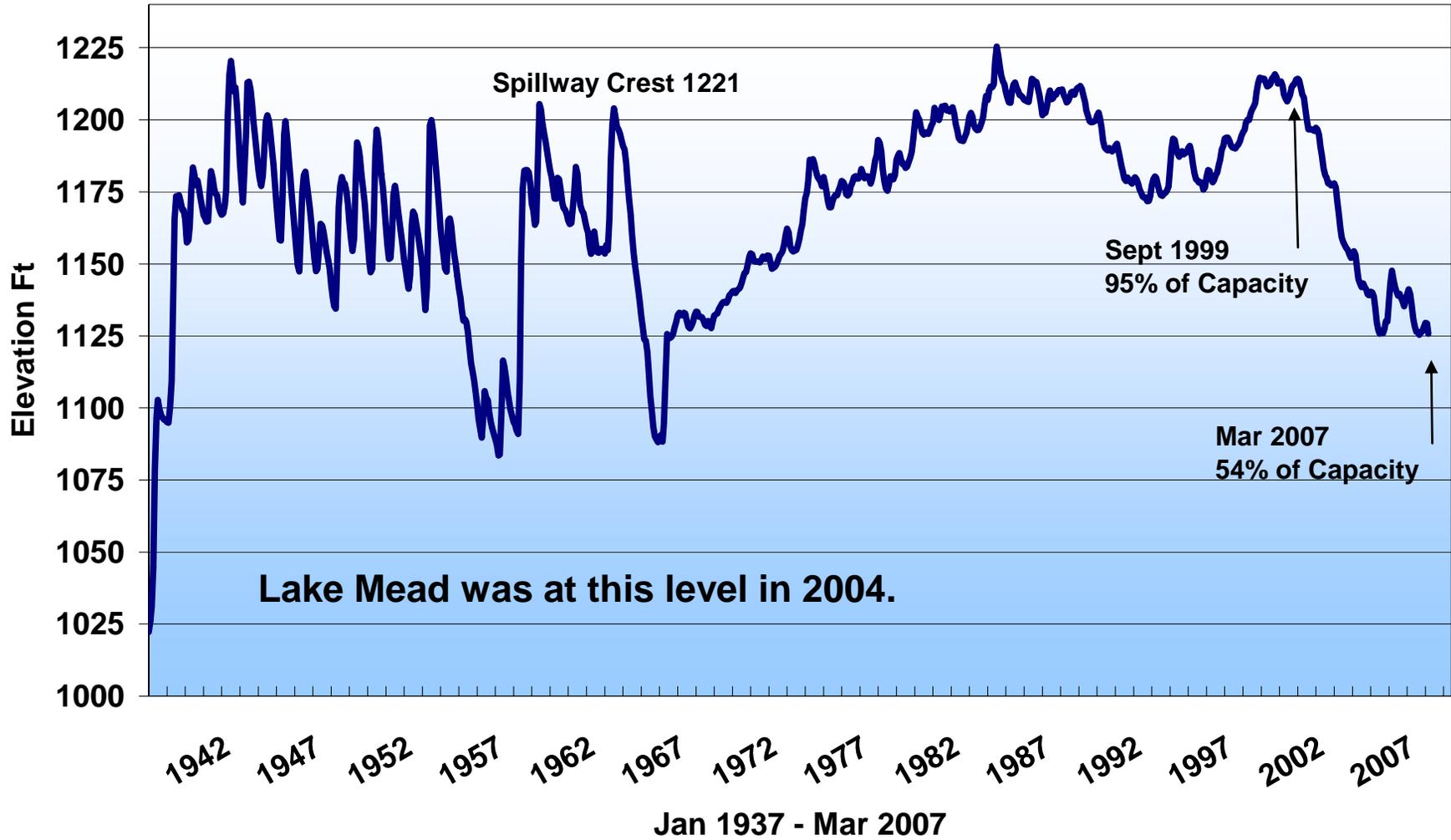


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As of Apr 8, 2007

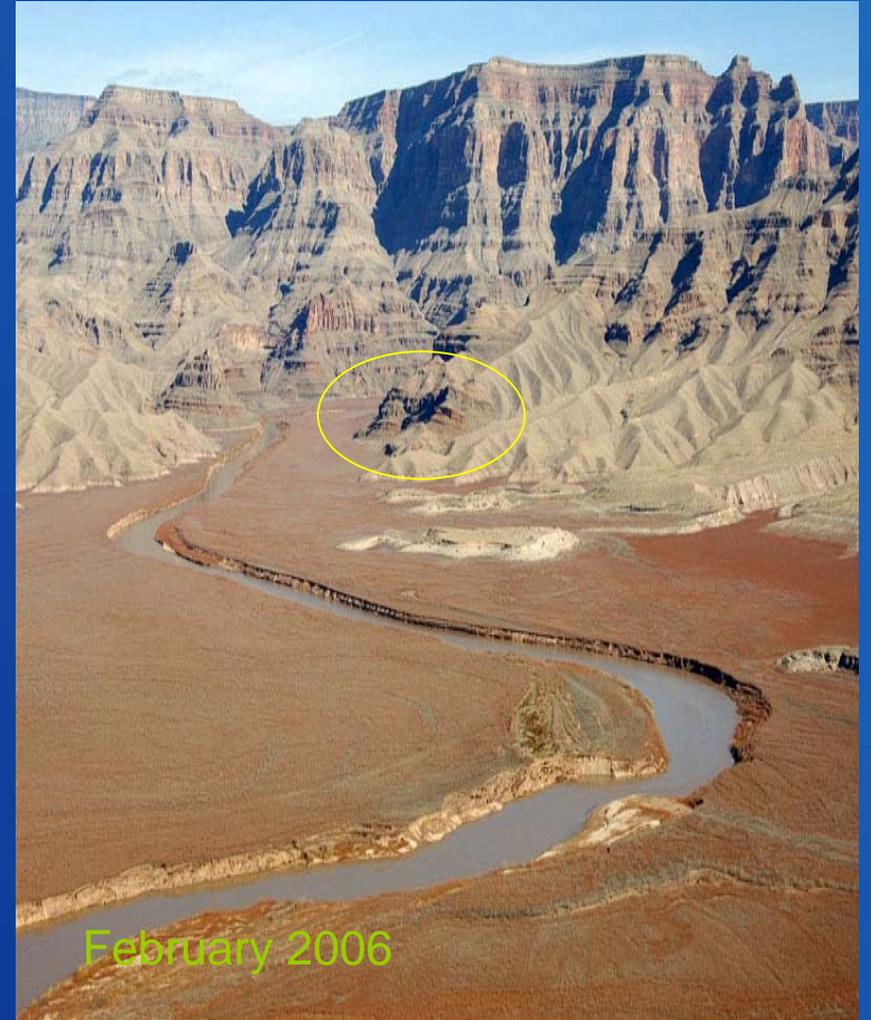
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Lake Mead End of Month Elevation



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Lake Mead's Delta Area 1999 – 2006



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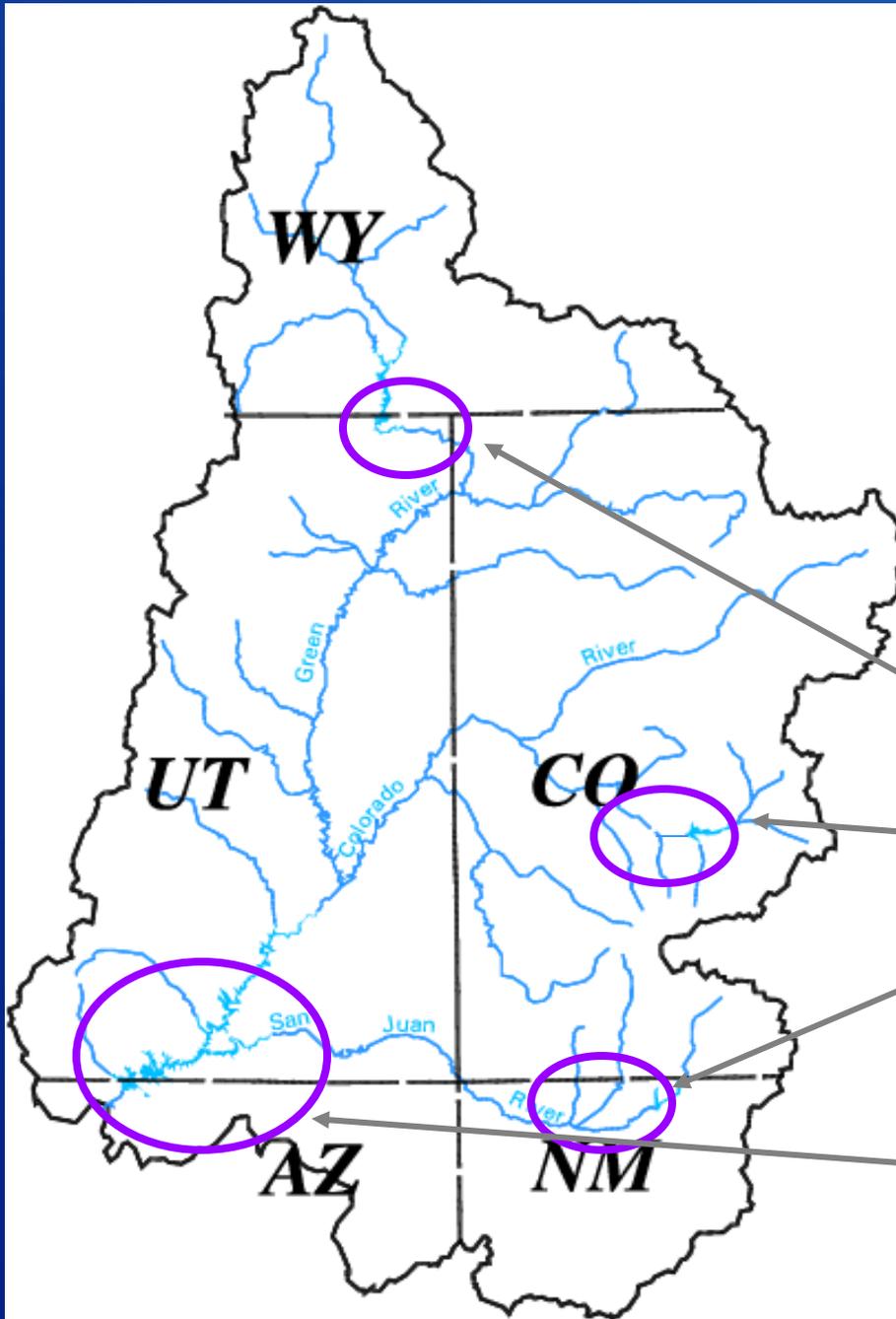
State of the System (1999-2006)

WY	Inflow to Powell % of Average	Powell and Mead Storage, maf	Powell and Mead % Capacity
1999	109	47.59	95
2000	62	43.38	86
2001	59	39.01	78
2002	25	31.56	63
2003	52	27.73	55
2004	51	23.11	46
2005	105	27.24	54
2006	73	25.80	51

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2007 Upper Colorado Projected Apr–Jul Inflow

based on Apr 2007
Final Inflow Forecast



Flaming Gorge – 44 %

Blue Mesa – 64 %

Navajo – 59 %

Lake Powell – 50 %

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Water Management

- Drought conditions have impacted storage in the Colorado system and future droughts are a certainty
- The Secretary may declare a shortage to the Lower Division states– delivery of less than 7.5 maf
- To date, there has never been a shortage to the Lower Division states and there are currently no shortage guidelines
- Current coordinated operation of Lake Powell and Lake Mead is only for higher reservoir elevations
- Additional operational guidelines are needed to aid the Secretary's Annual Operating Plan decisions
 - Provide a greater degree of certainty for water users with regard to future water supplies

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Project Background

- In 2004 - the Secretary challenged the Basin States to develop a drought mitigation plan for the Colorado River Basin
- May 2005 – Secretary tasked states to come up with a consensus plan and publicly committed to developing guidelines with or without state consensus
- Fall 2005 - Announced intent to initiate NEPA process, solicited public comments on scope and alternatives development
- March 2006 – Issued Federal Register Notice of Scoping Summary Report and refinement of scope
- June 2006 – Published draft alternatives
- February 2007 – Published Draft EIS

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Elements of Proposed Federal Action

- Shortage strategy for Lake Mead and the Lower Division states
- Coordinated operation of Lakes Powell and Mead
- Mechanism for the storage and delivery of conserved system and non-system water in Lake Mead
- Modification/extension of the existing Interim Surplus Guidelines

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Alternatives Analyzed in the Draft EIS

- Alternatives
 - No Action Alternative
 - Basin States Alternative
 - Conservation Before Shortage Alternative
 - Water Supply Alternative
 - Reservoir Storage Alternative
- No preferred alternative is identified in the Draft EIS and will be identified after the public comment period

Project website:
<http://www.usbr.gov/lc/region/programs/strategies.html>

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Project Schedule

- ✓ Summer 2005
 - Solicited public comments on proposed content, format, mechanisms and analysis
- ✓ Fall 2005
 - Announced intent to initiate NEPA process, solicited public comments on scope and alternatives development
- ✓ March 2006
 - Published Scoping Summary Report
- ✓ June 2006
 - Published the proposed alternatives
- ✓ February 2007
 - Published Draft EIS (February 28)

- March - April 2007 Public Comment Period through April 30th
- September 2007 Publish Final EIS
- December 2007 Publish Record of Decision

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An aerial photograph of a large concrete dam and reservoir. The reservoir is filled with clear, blue-green water and is surrounded by rugged, brown mountains. The dam is a curved concrete structure with several spillways. A road with a few cars is visible on the dam's crest. The sky is clear and blue.

The Colorado River: Operations and Current Conditions

For further information:
<http://www.usbr.gov/lc/region>

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